

AMENDMENTS TO THE DRAWINGS:

Please replace two (2) of the eight sheets of drawings presently on file, specifically, those bearing FIGS. 3 and 6, respectively, with the two (2) sheets of replacement drawings submitted herewith.

REMARKS

Applicant submits this Amendment in response to the Office Action dated September 30, 2009, in which the Examiner indicated that prosecution on the merits is closed (in accordance with *Ex parte Qualye*, certain claims having previously been allowed), but in which a requirement calling for the submission of a revised Sequence Listing for this patent application was imposed.

In response, applicant is submitting herewith, and is amending this patent application so as to specifically direct the entry of, a revised Sequence Listing (in paper form), listing not only the nine nucleotide sequences in this application that were listed previously, but also the nine *additional* nucleotide sequences appearing in FIGS. 3 and 6 of the drawings, which essentially comprise the nucleotide sequences of Intron B of the beta-actin genes of nine different animal species, including human beings (*Homo sapiens*).¹ The revised Sequence Listing, consisting of seven (7) pages, replaces in its entirety the Sequence Listing previously submitted for this application, which consisted

¹ For three of the nine species (*H. sapiens*, *M. musculus*, and *C. elegans*), the Intron B nucleotide sequences appeared in *both* FIG. 3 and FIG. 6 of the drawings, but as requested by the Examiner, those sequences have been added to the Sequence Listing only once. However, in accordance with the Examiner's instructions, since the versions of those sequences appearing in FIG. 3 were slightly more extensive than those appearing in FIG. 6 (due to the inclusion in FIG. 3 of two short contiguous segments of DNA, comprising the terminal nucleotides from the flanking Exon 2, and the initial nucleotides of the flanking Exon 3, respectively), applicant has added the longer FIG. 3 versions of these three sequences (rather than the shorter FIG. 6 versions) to the Sequence Listing.

of only five (5) pages. Applicant is also submitting herewith a copy of the revised Sequence Listing in computer readable form (on a single CD-ROM), in accordance with the requirements of 37 C.F.R. §§1.821(e) and 1.824.

In connection with the revised Sequence Listing submitted concurrently herewith, applicant's undersigned counsel hereby states (1) that the content of the enclosed paper copy and the enclosed computer readable copy, submitted in accordance with 37 C.F.R. §§1.821(c) and (e), respectively, is the same, and (2) that the content of the information submitted herewith, in accordance with 37 C.F.R. §1.821(g), does not include new matter.

Although the Examiner explicitly stated in the outstanding Office Action that applicant was not being required to apply any of the new sequence identifiers ("SEQ ID NO:10" - "SEQ ID NO:19") to FIGS. 3 or 6, and that replacement versions of FIGS. 3 and 6 were therefore unnecessary, applicant is nevertheless submitting revised versions of FIGS. 3 and 6 herewith, albeit for different reasons: it has been determined that FIGS. 3 and 6, as initially submitted, contained inadvertent errors (to be detailed hereinafter), and therefore applicant seeks to correct those errors now, prior to the issuance of a Notice of Allowance. Specifically, applicant has become aware that errors were inadvertently introduced into the nucleotide sequence derived from mouse DNA

(*Mus musculus*) appearing in both FIG. 3 and FIG. 6, and that in addition, there was an inconsistency with respect to the partial amino acid sequences depicted in different portions of FIG. 3.

As to the mouse sequences, specifically, the nucleotide sequence of Intron B of the murine cytoplasmic beta-actin gene, shown in the lower portion of FIG. 3 and in the bottom "line" of FIG. 6, it has been determined that neither of those sequences actually matches the correct, reference sequence that may be found in the GenBank database of publicly available nucleotide sequences and their protein translations. It is believed that a mishap occurred in the preparation of these drawing figures, such that in a cut/paste step a stretch of the sequence in FIG. 3 was inadvertently shifted (transposed) from one location to another, and a minor deletion as well as a single nucleotide substitution were mistakenly introduced into FIG. 6. Set forth below is the output of a sequence comparison produced by the Clustal computer program, showing the errors found (as compared with the reference mouse sequence), all of which applicant now seeks to correct.²

² In the revised Sequence Listing being submitted herewith, these corrections have already been made; thus, the sequence now identified with SEQ ID:11 already corresponds to the GenBank reference sequence for *M. musculus*.

Clustal BACT *Mus musculus*

| | |
|--|--|
| Figure6 ref NC_000071.5 NC_000071_c143 Figure3 | -----GTGACCTGTT --AGTTTGGGAGTGGCAAGCCTGGGGT 35 CTAGGCACCAGGTAACTGACCTGTT---ACTTTGGGAGTGGCAAGCCTGGGGT 1200 -----GTAAGTGACCTGGCACTTTGGGAGT---AAGCCTGGGGT 39 ***** * ***** * ***** * ***** |
| Figure6 ref NC_000071.5 NC_000071_c143 Figure3 | TTTCTTGGGGATCGATGCCGGTCTAACAGAAGGCTGTTCCCTTCACAG 83 TTTCTTGGGGATCGATGCCGGTCTAACAGAAGGCTGTTCCCTTCACAG 1250 TTTCTTGGGGATCGATGCCGGTCTAACAGAAGGCTGTTCCCTTCACAG 87 ***** * ***** * ***** * ***** |

Regarding the partial amino acid sequences of the cytoplasmic beta-actin protein depicted in FIG. 3 simply for context, including the amino acids coded by the terminal nucleotides of Exon 2 and those coded by the initial nucleotides of Exon 3, the inconsistency lies in the first eight amino acids coded by Exon 3. At the top of FIG. 3, and for all three species (*H. sapiens*, *M. musculus* and *C. elegans*), those first eight amino acids (following Intron B) are shown as "GVMVGMGQ"; however, in the middle of FIG. 3, those eight amino acids are shown (on the right side, underneath the partial Exon 3 nucleotide sequences) as "GVMVGRHQ" - the inconsistency being in the sixth and seventh amino acids. Applicant has now determined that the correct sequence is the one set forth at the top of FIG. 3, and it is believed that the inconsistency was inadvertently introduced by typographical error when FIG. 3 was being prepared; thus applicant seeks correction of the partial amino acid sequence shown in the middle of FIG. 3, on the right side.

All of the foregoing errors have been corrected in the revised versions of FIGS. 3 and 6 submitted herewith, each marked as a "Replacement Sheet." No other

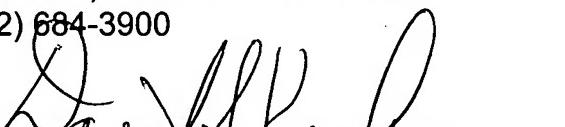
substantive changes have been made in these drawing figures,³ and it is submitted that since all of the corrections are being made in standard reference data that are being provided gratuitously by applicant in this patent application for context, they do not qualify as new matter.

Applicant has responded herein to the points raised by the Examiner in the Office Action, and applicant has provided a revised Sequence Listing in an earnest effort to place this application in condition for allowance. Accordingly, further favorable action in connection with this patent application is earnestly solicited. The Examiner is invited to contact the undersigned attorney by telephone if it will advance the prosecution of this case.

Respectfully submitted,

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By:



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³ However, the frame around each image has been removed, each image has been converted from portrait mode to landscape mode, and each image has also been enlarged somewhat to improve its legibility.



C E R T I F I C A T E O F M A I L I N G

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on:

Date of Deposit November 20, 2009

David S. Kashman; Reg. No. 281125
(Name of applicant, assignee or Registered Representative)

A handwritten signature in black ink that reads "David S. Kashman".

(Signature)

November 20, 2009
(Date of Signature)